State Of California **The Resources Agency of California**

Memorandum

Date: June 28, 2001
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To: Arthur Rosenfeld, Presiding Member
Robert Laurie, Associate Member

From: **California Energy Commission**
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Jack W. Caswell, Project Manager

Subject: **VALERO COGENERATION PROJECT ISSUE IDENTIFICATION REPORT**

Attached is the staff's Issue Identification Report. This report serves as a preliminary scoping document as it identifies the issues the Energy Commission staff believe will require careful attention and consideration. Energy Commission staff will present the Issues Report at a scheduled Information Hearing, Issue Identification, and Data Response Workshop, on July 12, 2001, at 6:30 p.m. in the Benicia Public Library, 150 East L. Street, Benicia, California, 94510.

Part of this report deals with scheduling issues. The Energy Commission is reviewing the Valero Cogeneration Project pursuant to the expedited four-month Application for Certification (AFC) process set forth by Public Resources Code section 25552. The Energy Commission staff is recommending the AFC process be completed in 95 to 120 days.

Attachments

cc: Proof of Service List
San Francisco RWQCB
Bay Area Air Quality Management District
Cal/Trans

ISSUE IDENTIFICATION REPORT

VALERO COGENERATION PROJECT

(01-AFC-5)

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PURPOSE OF REPORT

This report has been prepared by the California Energy Commission staff to inform the Committee and all interested parties of the potential issues that have been identified in the case thus far. Issues are identified as a result of discussions with federal, state, and local agencies, and our review of the Valero Cogeneration Project Application for Certification (AFC), Docket Number 01-AFC-5. This Issue Identification Report contains a project description, summary of potentially significant environmental issues, and a discussion of the proposed project schedule. The staff will address the status of potential issues and progress towards their resolution in periodic status reports to the Committee.

PROJECT DESCRIPTION

Valero proposes to construct a refinery gas-fired power plant within the Valero Refinery, located in the City of Benicia, in Solano County. The proposed facility will include two combustion LM6000 turbine generators (CTGs) operating in a simple cycle mode equipped with water injection to control oxides of nitrogen (NOx) emissions and associated support equipment. The installation of the "first" CTG will produce electricity in the simple cycle mode for use in the refinery as a reliable source of energy for their process. Also, at other times, a small amount of power will be imported from the grid for use in the refinery. When the "second" CTG is on line a small amount of surplus power is expected to be available from time to time and will be exported for sale. Heat Recovery Steam Generators (HRSG) will be used to provide steam for use in the refinery process. This facility is not owned by a utility or utility affiliate. As a result of this project, the refinery will not require the current power consumed from the grid and will release a portion of the electricity generated for use by other California electric customers.

The project will consist of:

- Two GE gas turbines (LM6000) with generator and chiller, nominal capacity up to approximately 51 MW each.
- Fuel gas compression facilities to supply refinery fuel gas and/or natural gas to the turbines.
- Two heat recovery steam generators (HRSGs) with duct burners and emission control SCRs.
- Approximately 1000 feet of new refinery fuel gas line and 500 feet of new natural gas supply line.
- Piping, pumps, and other equipment to support the operation.

Details:

- The Assessor's Block and Lot Number for the site is 90-110-03.
- Refinery fuel gas is produced as a part of the refining process.
- Natural gas for use as a fuel comes from the existing PG&E system via refinery piping.

- The refinery's raw water supplier is the City of Benicia and the State Water Project (North Bay Aqueduct).

- Water will be treated on site with existing facilities prior to use for injection.

- Air pollutants in the gas turbine exhaust will be controlled using state-of-the-art combustion technology, selective catalytic reduction (SCR), and an oxidation catalyst.

- The heat rejection system for the chiller and lube oil will utilize a small packaged on-site cooling water system.

- The proposed 12 kV transmission line interconnection will be routed underground, southeast of the CTGs, approximately 600 feet to the existing Valero switch house for connection.

- For installation of the first CTG, two existing package boilers will be permanently shut down and emission credits used as BAAQMD permitting offsets. A third boiler is projected to be held as a cold standby. For installation of the second CTG, an additional boiler will be permanently shut down.

POTENTIAL MAJOR ISSUES

This portion of the report contains a discussion of the potential issues the Energy Commission staff has identified to date. This report may not include all the significant issues that may arise during the case, as discovery is not yet complete, and other parties have not had an opportunity to identify their concerns. The identification of the potential issues contained in this report was based on our judgement of whether any of the following circumstances will occur:

- Significant impacts may result from the project which may be difficult to mitigate;
- The project as proposed may not comply with applicable laws, ordinances, regulations or standards (LORS);
- Conflicts may arise between the parties about the appropriate findings or conditions of certification for the Commission decision that could result in a delay to the schedule.

The following table lists all the subject areas evaluated and notes those areas where the critical or significant issues have been identified and if data requests have been requested. Even though an area is identified as having no potential issues, it does not mean that an issue will not arise related to the subject area. For example, disagreements regarding the appropriate conditions of certification may arise between staff and applicant that will require discussion at workshops or even subsequent hearings. However, we do not currently believe such an issue will have an impact on the case schedule or that resolution will be difficult.

Major Issue	Data Req.	Subject Area	Major Issue	Data Req.	Subject Area
No	No	Air Quality	No	No	Public Health

No	Yes	Biological Resources	Yes	No	Socioeconomics
No	Yes	Cultural Resources	No	No	Traffic & Transportation
No	No	Reliability/Efficiency	No	No	Transmission Safety
No	No	Facility Design	No	Yes	Transmission Sys. Eng.
No	Yes	Geological Resources	No	Yes	Visual
No	Yes	Hazardous Material	No	No	Waste Management
No	No	Land Use	No	Yes	Water & Soil
No	Yes	Noise	No	Yes	Worker safety

At this time, the staff does not anticipate any major potential issues that can not be mitigated to less than significant. Staff is ready to participate with the applicant, other agencies, etc., to address data requests or any issues that may arise. We plan to use this report and the data responses to focus our analysis on issues that will ultimately be addressed in the Staff Assessment (SA).

SOCIOECONOMICS

Based on a preliminary assessment of demographic data for a 6-mile radius surrounding the proposed Valero Cogeneration Project site, there could be a potential for environmental justice issues. Fourteen (14) census tracts located to the north, west and northwest of the proposed project site are composed of populations that are 50% or more minority in composition. Out of these 14 census tracts, seven (7) tracts are composed of 75% or more minority populations. It should be noted that the census tract wherein the project site occurs, and the tracts immediately adjacent to it, are made up of less than 50% minority populations.

Given the high minority percentages within a 6-mile radius of the project site, there could be potentially significant impacts to these populations. If any significant impacts are identified by the air quality, public health, hazardous materials, and noise analyses, the socioeconomics analysis, in turn, will have to determine the potential for any disproportionate impact and provide mitigation as appropriate.

SCHEDULING ISSUES

Staff has begun its analyses of the project and is currently in the discovery phase, as well as its assessment of other environmental and engineering aspects of the applicant's proposal.

Public Resources Code Section 25552(b)(2) requires that the Committee determine, within 25 days of the determination that the application is data adequate--in this case by July 2, 2001--whether the project is eligible for the four-month review process described in Section 25552. Staff, on the basis of information currently before it, believes that project is eligible because conditions of approval can be imposed upon the project to assure:

(1) that the project and related facilities will not have a significant adverse effect on the environment as a result of construction or operation;

(2) the protection of public health and safety;

(3) that the project will comply with all applicable federal, state, and local laws, ordinances, and standards;

(4) that both turbines comprising the project, will be in service before December 31, 2002; and

(5) the project will obtain offsets or, where offsets are unavailable, pay an air emissions mitigation fee to the air quality management district based upon the actual emissions from the project.

An additional prerequisite that the project convert to either combined cycle or cogeneration within 3 years of licensure is satisfied by the project as proposed includes cogeneration components (heat recovery steam generators) which will become operational when the turbines come on-line or shortly thereafter.

On the basis of the above information, staff recommends that the Committee find that the project continues to qualify for the four-month process. Given that any potential issues identified by staff to date are viewed as feasible to mitigate, it appears that a 95 to 120-day project schedule will be achievable.

Following is staff's proposed schedule for key events of the project. The ability of staff to be expeditious in meeting this schedule will depend on the applicant's timely response to: staff's data requests, the filing of Determination of Compliance from the air district, and other factors not yet discovered.

ENERGY COMMISSION STAFF'S PROPOSED SCHEDULE

Data Adequacy	May 7 (Monday)	Application filed
Data Adequacy	May 31 (Thursday)	Staff recommendation on DA
Day 0	June 6 (Wednesday)	CEC determines Data Adequacy
Day 5	June 11 (Monday)	Staff files Data Requests
Day 16	June 22 (Friday)	Applicant files Data Responses
Day 20	June 26 (Tuesday)	Staff Files Issue Identification Report
Day 36	July 12 (Thursday)	Information Hearing & Site Visit
Day 36	July 12 (Thursday)	Workshop on Issues, & Data Responses
Day 40	July 16 (Monday)	Air District PDOC? (This is an estimate)
Day 55	July 31 (Tuesday)	Staff files Assessment
Day 63	Aug 8 (Wednesday)	Workshop on Staff Assessment
Day 70	Aug 15 (Wednesday)	District's Final DOC (This is an estimate)
Day 71	Aug 16 (Thursday)	Staff files addendum to Assessment
Day 75	Aug 20 (Monday)	Hearing
Day 82	Aug 27 (Monday)	PMPD
Day 90	Sept 4 (Tuesday)	Hearing on PMPD
Day 95	Sept 10 (Monday)	Decision